What is claimed is:

1. A composition comprising:

a vaccine preparation in unit dosage form including:

an effective amount of an antigen;

an adjuvant component comprising phytol or a phytol derivative; and

optionally a carrier.

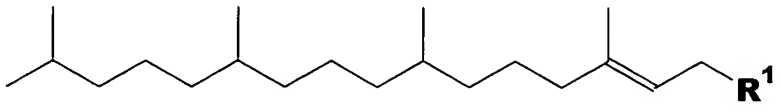
2. The composition of claim 1 wherein the adjuvant component comprises phytol.

3. The composition of claim 1 wherein the adjuvant component comprises isophytol.

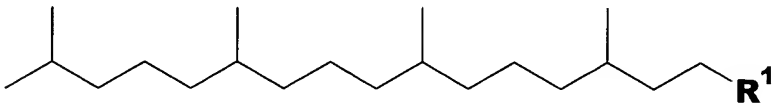
4. The composition of claim 1 wherein the adjuvant component comprises phytanol.

5. The composition of claim 1 wherein the adjuvant component comprises a phytol derivative selected from the group consisting of: phytanol; 1-chloro-3,7,11,15-tetramethyl hexadec-2-ene; iodo-3,7,11,15-tetramethyl hexadeca-2-ene; 1-amino-3,7,11,15-tetramethyl hexadec-2-ene; 3,7,11,15-tetramethyl-hexadec-2-en-1-al; 3,7,11,15-tetramethyl-1-hexadecanal; 3,7,11,15-tetramethyl-1-hexadec-2-enyl acetate; 3,7,11,15-tetramethyl-1-hexadecanyl acetate; 1-chloro-3,7,11,15-tetramethyl hexadecane; 1-iodo-3,7,11,15-tetramethyl hexadecane; 1-amino-3,7,11,15-tetramethyl hexadecane; 1-methyl amino-3,7,11,15-tetramethyl hexadecane; stereoisomers and mixtures thereof.

6. The composition of claim 1 wherein the adjuvant component comprises phytol or a phytol derivative of the formula I or II:



I



II

wherein R^1 is selected from the group of chemical moieties, ions, or radicals consisting of: Br^-, Cl^-; I^-; $-NH_2$, $-NO_2$, OH, $PO_4^=$, HPO_4^-, NHR^2, $OC(O)R^2$, OR^2, wherein R^2 is a hydrocarbyl having 1 to 10 carbon atoms or a carbohydrate.

7. The composition of claim 1 wherein the antigen includes a T-independent antigen.

8. The composition of claim 7 wherein the antigen is selected from the group consisting of: polysaccharides, pneumococcus polysaccharides, bacterial lipopolysaccharides, synthetic lipoolysacchrarides, and hapten-polysaccharide conjugates.

9. The composition of claim 1 wherein the antigen includes a T-dependent antigen.

10. The composition of claim 9 wherein the antigen is selected from the group consisting of: proteins, peptides, lipoproteins, glycoproteins, ganliosides, cerebrosides, nucleoproteins, eukaroytic cellular isolates, and prokaryotic cellular isolates.

11. The composition of claim 1 wherein the carrier is sterile water at pH 7.0.

12. The composition of claim 1 wherein the carrier is physiological buffers that include carbonates, bicarbonates, phosphates.

13. The composition of claim 1 wherein the vaccine composition is an oil-in-water emulsion.

14. The composition of claim 13 comprising a surfactant or emulsifier.

15. The composition of claim 14 wherein the emulsifier is selected from the group consisting of: phospholipids such as phosphoglycerides, lysophosphoglycerides, spingomyelin, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol and mixtures thereof.

16. The composition of claim 1 wherein the vaccine composition comprises the phytol or the phytol derivative and the antigen in a weight ratio of between about 1:4 to about 1:1.

17. A method of enhancing the immunogenicity of a vaccine composition, said method comprising:

selecting an antigen eliciting a desired immunogenic response in a mammal, and

combining the antigen with phytanol or a phytol derivative in a physiological acceptable carrier.

18. The method of claim 17 wherein the antigen, in the absence of phytol or a phytol derivative, elicits a desired immunogenic response in a mammal at a first effective dose, and is combined with phytol or a phytol derivative at a second dose lower than the first effective dose.

19. The method of treating a patient in need thereof, said method comprising administering to the patient a vaccine composition comprising an antigen and a adjuvant component including phytol or a phytol derivative in a physiologically acceptable carrier.

20. The method of claim 19 wherein the vaccine composition is an oil-in-water emulsion.

21. The method of claim 20 wherein the vaccine composition comprises an emulsifier.

22. The method of claim 21 wherein the emulsifier is selected from the group consisting of: phospholipids such as phosphoglycerides, lysophosphoglycerides, spingomyelin, phosphatidyl choline, phosphatidyl ethanolamine, phosphatidyl inositol, and mixtures thereof.

23. The method of claim 19 wherein the antigen includes a T-independent antigen.

24. The method of claim 19 wherein the antigen includes a T-dependent antigen.

25. The method of claim 19 wherein the vaccine composition is an aqueous dispersion.

26. The method of claim 19 wherein the antigen, without the adjuvant component containing phytol or a phytol derivative, elicits a first immunological response in the patient at a first dose, and the vaccine composition contains the antigen at a second dose lower than the first dose, said vaccine composition eliciting substantially the same first immunological response as the antigen without the adjuvant component containing phytol or a phytol derivative.

27. A composition comprising a vaccine preparation in unit dosage form including an effective amount of an antigen conjugated directly to phytanol or a phytol derivative and a surfactant mixed in equal volume, and optionally a carrier or buffer solution.

28. The composition of claim 27 comprising between 4 and 100 micrograms of the antigen conjugated directly to phytanol or a phytol derivative.

29. The composition of claim 27 comprising between about 0.05 to about 0.1 % (wt/v) of the surfactant.